

# Curating and Enriching Portfolio Resources

November 2, 2018

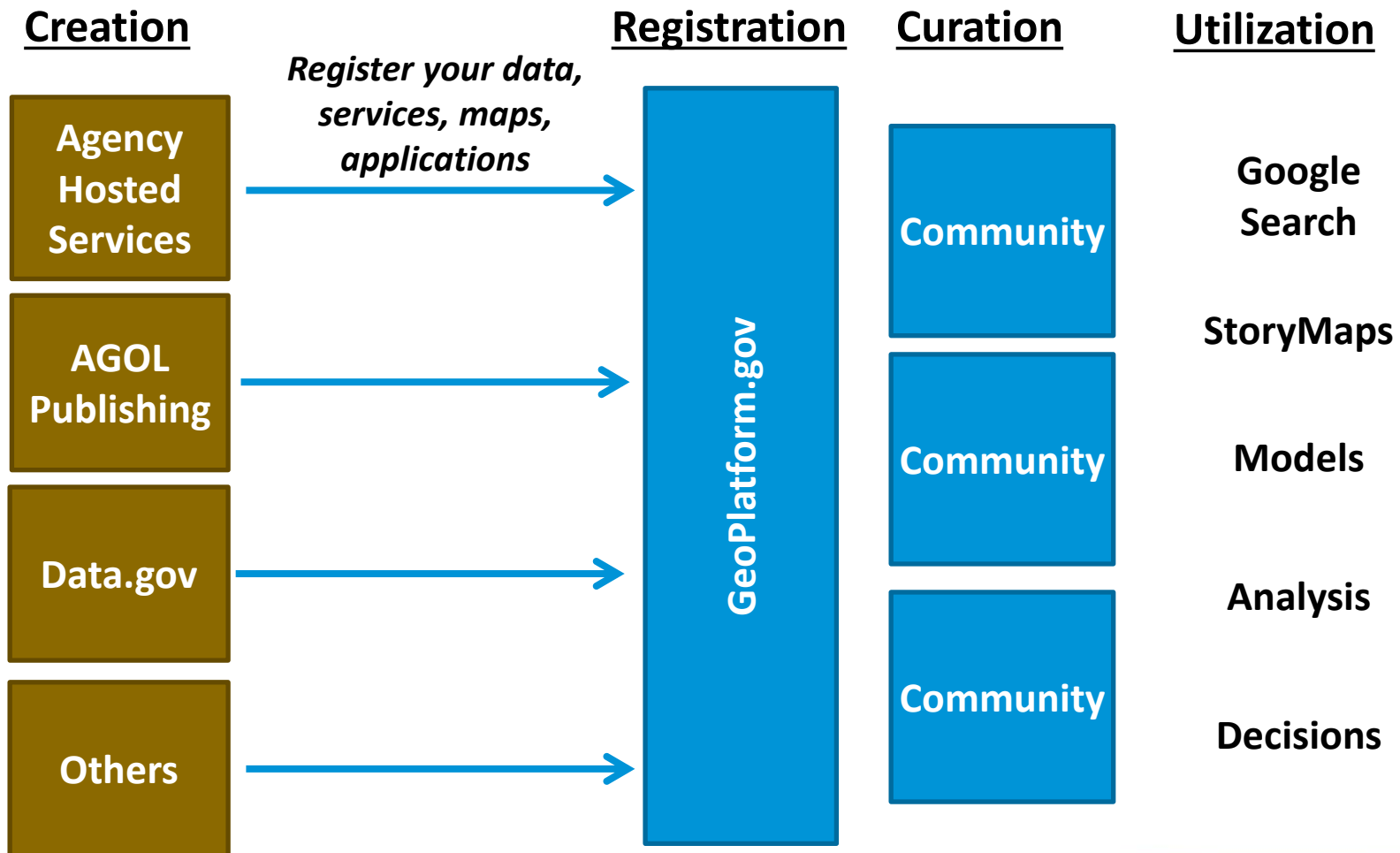
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# Event-driven workflows for inter-agency data sharing

*Enabling “FAIR” (Findable, Accessible, Interoperable, Reusable)...*



# Why edit and enrich Objects?

## Preparing Geospatial Assets for the Semantic Web...

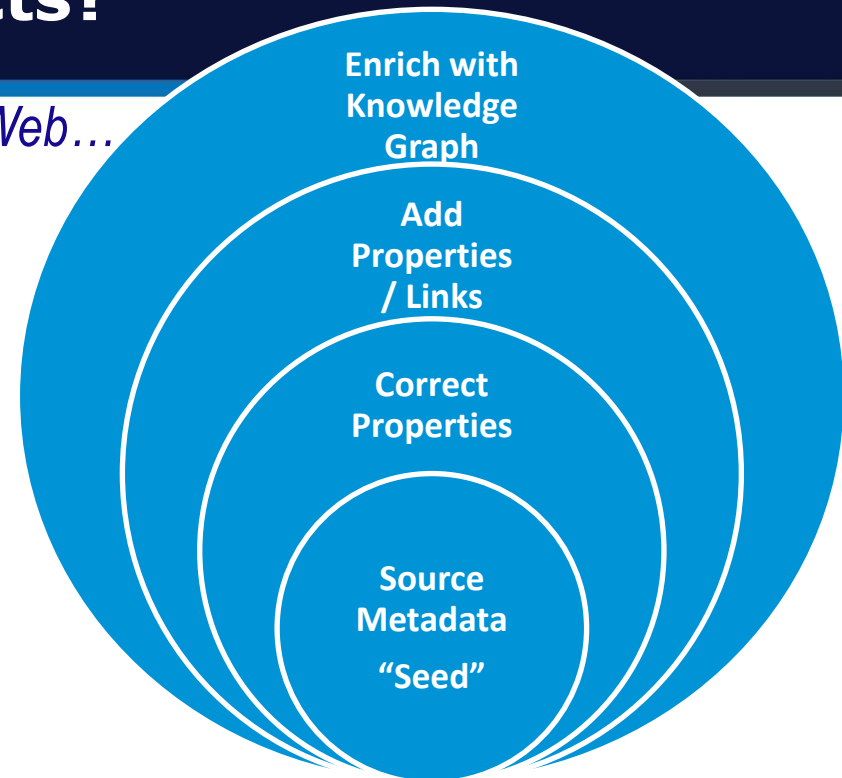
### ■ Check & fix the following:

- **Title** (typically inconsistent with the listed NGDA title)
- **Keywords** (inconsistent use of Thesaurus; often terms not actually specified in Thesaurus; missing or inconsistent citation of authoritative Thesaurus)
- **Themes** (inconsistent use of Thesaurus; often terms not actually specified in Thesaurus; missing or inconsistent citation of authoritative Thesaurus)
- **Services & Distributions** (often not specified or not according to FGDC guidelines)
- **Publisher/ Contributor/ Contacts** (often not specified or inconsistent)
- **Related Resources** (typically buried in DistributionInfo and incomplete)

### ■ Add (enrich for machine understanding, search relevance, and recommendations):

- **Add NGDAID identifier** (need standardized identifier scheme to uniquely/ unambiguously/ persistently identify authoritative datasets)
- **Add Landing page links** (often not or inconsistently specified to NGDA Theme Community)
- **If Dataset, add links to Services** (often not specified or not according to FGDC guidelines)
- **If Service, add links to Datasets**
- **If Layer, add links to Datasets**

### ■ Build Knowledge Graph



# For example, from the 2018 HIFLD Data Catalog

- A sampling of 112 HIFLD services (1/3 of published services)
  - 8% Unsuccessful URL Response Rate (9 Objects)
  - 92% Successful URL Response Rate (102 Objects) (import and validate with SSC)
    - 98% No Title in the service metadata (100 Objects)
    - 84% No Description in the service metadata (86 Objects)
    - 85% No Publisher in the service metadata (87 Objects)
    - 92% No Keywords in the service metadata (94 Objects)
    - 87% Metadata quality rating: 1 - Not good service metadata (89 Objects)
    - 10% Metadata quality rating: 2 - Serviceable service metadata (11 Objects)
    - 1% Metadata quality rating: 3 - Good service metadata (1 Objects)

***This is a hurdle we're trying to overcome everywhere (not just HIFLD)!***

# Examples of Service-level Metadata

## ■ Not So Good metadata

- Chemicals | EPA Emergency Response (ER) Facility Response Plan (FRP) Facilities  
[https://services1.arcgis.com/Hp6G80Pky0om7QvQ/ArcGIS/rest/services/EPA\\_Emergency\\_Response\\_ER\\_Facility\\_Response\\_Plan\\_FRP\\_Facilities/FeatureServer](https://services1.arcgis.com/Hp6G80Pky0om7QvQ/ArcGIS/rest/services/EPA_Emergency_Response_ER_Facility_Response_Plan_FRP_Facilities/FeatureServer)

## ■ OK metadata

- Energy | Petroleum Terminals  
[https://services1.arcgis.com/Hp6G80Pky0om7QvQ/ArcGIS/rest/services/Petroleum\\_Terminals\\_1/FeatureServer](https://services1.arcgis.com/Hp6G80Pky0om7QvQ/ArcGIS/rest/services/Petroleum_Terminals_1/FeatureServer)

## ■ Pretty Good metadata

- Geonames | Cities and Towns NTAD  
[https://maps.bts.dot.gov/services/rest/services/NTAD/Populated\\_Places/MapServer](https://maps.bts.dot.gov/services/rest/services/NTAD/Populated_Places/MapServer)

## ■ Very Good metadata

- EnviroAtlas U.S. | Rare Ecosystems  
[https://enviroatlas.epa.gov/arcgis/rest/services/Supplemental/Rare\\_Ecosystems/MapServer](https://enviroatlas.epa.gov/arcgis/rest/services/Supplemental/Rare_Ecosystems/MapServer)

# Introducing Object Editor

*A tool for “curating” Portfolios of Online Geospatial Resources.....*

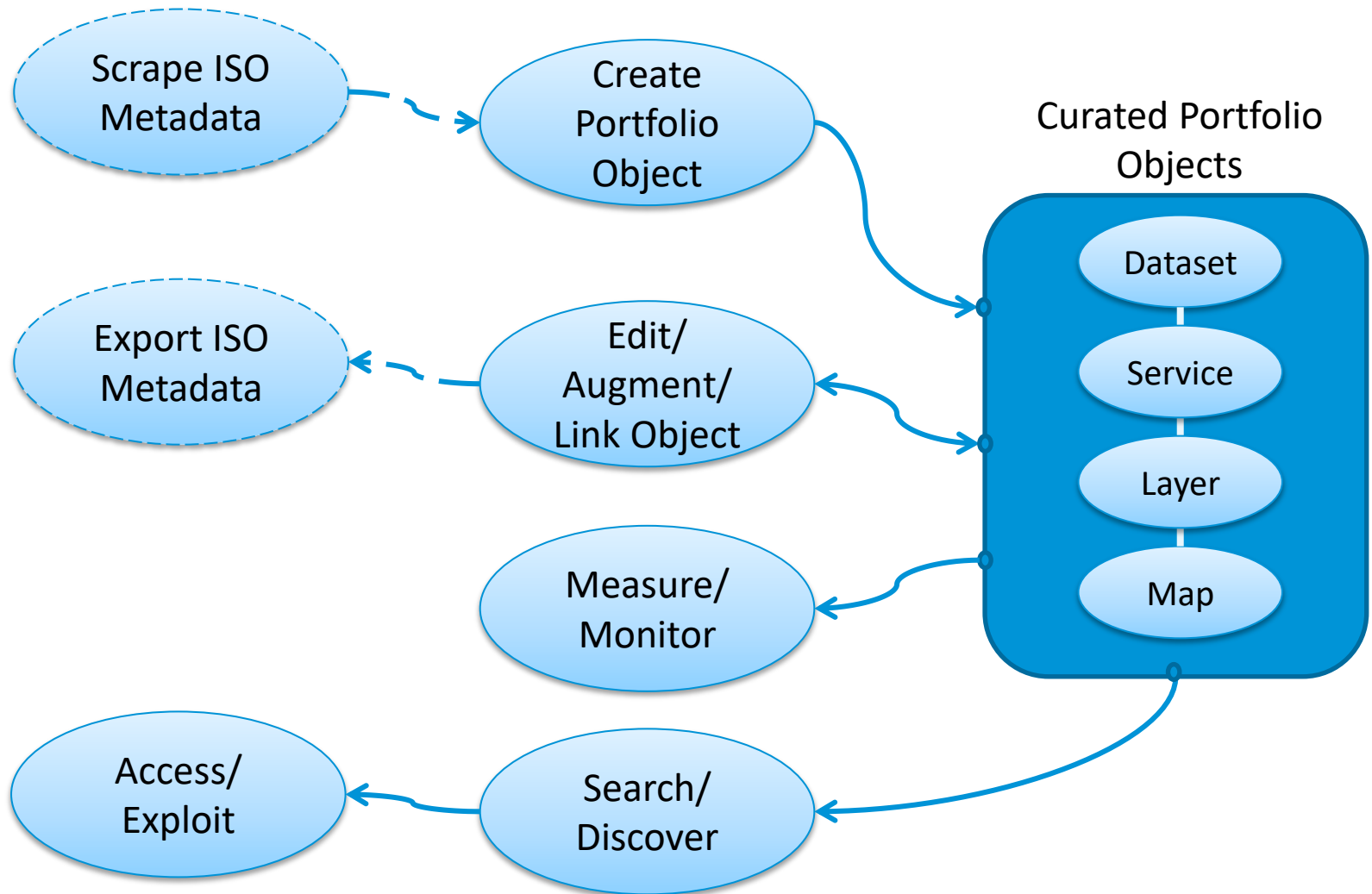
It is used to support these functions...

- Import ISO 19115 for Datasets and Services to create objects in GeoPlatform
- Curate (fix, augment, manage) Dataset, Service, Layer and Map objects for improved search and automated online access
- Automatically harvest and link Service and Layer objects
- Export ISO 19115 for Datasets and Services for exchange with external systems
  - Note: *GeoPlatform Profile for ISO 19115-1* supports Layers and Maps too

It is not a...

- A metadata editor (*but can be used to fix/ augment metadata*)
- A metadata validator (*but it produces valid metadata*)
- A metadata viewer (*but it does, through the lens of an object*)
- A tool for publishing metadata to external catalogs and portals (data.gov, CSW, CKAN, etc)

# Demonstration: Curating the Portfolio



# Open Discussion



